

CLAIMS

What is claimed is:

1. An apparatus for electrically connecting two objects together, comprising:  
a first object which has a first connective surface defined thereon;  
a plurality of first electrical pads supported on the first connective surface;  
a second object which has a second connective surface defined thereon;  
a plurality of second electrical pads supported on the second connective surface  
and configured to contact the first electrical pads; and,  
wherein the first and second objects are further configured to be electrically  
connected to each other by movement of the first object relative to the second object in  
a given direction and along a continuous path of movement which is substantially parallel  
to the first connective surface.
2. The apparatus of claim 1, and wherein the path of movement is substantially  
straight.
3. The apparatus of claim 1, and wherein the first and second connective surfaces  
are substantially flat.
4. The apparatus of claim 1, and wherein the first and second objects are further  
configured to be subsequently electrically disconnected from each other by movement  
of the first object relative to the second object along the path of movement in any one  
of a plurality of directions.
5. The apparatus of claim 1, and wherein:  
the first connective surface forms an open-ended trough; and,  
the second connective surface forms a ridge which is configured to matingly  
engage the trough when the first and second objects are electrically connected.

6. The apparatus of claim 1, and further comprising an alignment member which is movably supported on the second object and which is configured to engage the second object when moved so as to substantially align the first electrical pads with the second electrical pads in order to facilitate contact there between.
7. The apparatus of claim 1, and wherein the first and second connective surfaces are substantially parallel and in juxtaposed relation when the first and second objects are electrically connected.
8. The apparatus of claim 1, and wherein the first electrical pads are configured to be resiliently flexible, and are further configured to be deflected when the first and second objects are electrically connected.
9. An apparatus for electrically connecting two objects together, comprising:
  - a first object which has a ridge formed thereon;
  - a plurality of first electrical pads supported on the ridge;
  - a second object which is configured to be electrically connected to the first object, and which has an open-ended trough formed thereon, and which trough is configured to matingly engage the ridge when the first and second objects are electrically connected;
  - a plurality of resiliently flexible second electrical pads supported substantially within the trough; and,wherein:
  - the first and second objects are further configured such that the ridge and the trough can be engaged by movement of the first object relative to the second object along a continuous path of movement in a given direction; and,
  - the first and second electrical pads are configured to contact one another during engagement of the ridge and the trough.
10. The apparatus of claim 9, and wherein, the first and second objects are further configured such that the ridge and the trough can be disengaged by movement of the first object relative to the second object along the path of movement in any of a number of directions.

11. The apparatus of claim 9, and wherein the ridge and the trough are substantially parallel to the path of movement.

12. The apparatus of claim 9, and further comprising an alignment member which is movably supported on the second object, and wherein:

a first cam surface is defined on the alignment member and is configured to contact the first object during movement of the alignment member so as to substantially align the first object in a lateral direction; and,

a second cam surface is defined on the alignment member and is configured to contact the first object during movement of the alignment member so as to substantially align the first object in a fore-and-aft direction.

13. The apparatus of claim 12, and wherein the alignment member is configured to engage the first object so as to substantially lock the first and second objects together.

14. The apparatus of claim 9, and further comprising an alignment member which is movably supported on the second object, and wherein a first cam surface is defined on the alignment member and is configured to contact the first object during movement of the alignment member so as to cause substantial alignment of the first object with respect to the second object in a lateral direction;

15. The apparatus of claim 14, and wherein:

a second cam surface is defined on the alignment member and is configured to contact the first object during movement of the alignment member so as to cause substantial alignment of the first object with respect to the second object in a fore-and-aft direction; and,

a third cam surface is defined on the alignment member and is configured to resiliently deflect the second electrical pads so as to selectively cause the second electrical pads to contact the first electrical pads after engagement of the ridge and trough.

16. The apparatus of claim 15, and wherein the third cam surface is further configured to move independently with respect to the first and second cam surfaces.

17. A method of electrically connecting two objects together, comprising:

providing a first object which has a first connective surface defined thereon and which also has a plurality of first electrical pads supported on the first connective surface;

providing a second object which has a second connective surface defined thereon and which also has a plurality of second electrical pads supported on the second connective surface; and,

moving the first object relative to the second object along a path of movement which is substantially parallel to the first and second connective surfaces.

18. The method of claim 17, and further comprising stopping movement of the first object relative to the second object when the first electrical pads come into contact with the second electrical pads.

19. The method of claim 17, and further comprising:

providing an alignment member which is movably supported on the second object;

stopping movement of the first object with respect to the second object when the first and second electrical pads come into substantial alignment with one another; and,

moving the alignment member so as to cause the first and second electrical pads to contact one another.

20. The method of claim 17, and further comprising:
  - providing an alignment member which is movably supported on the second object;
  - stopping movement of the first object with respect to the second object when the first and second electrical pads come into substantial alignment with one another; and,
  - moving the alignment member so as to substantially lock the first and second objects together.